



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,967	02/09/2004	Samuel R. Mollet	GS-121029-4 (383)	4226
29391 7590 03/28/2008 BEUSSE WOLTER SANKS MORA & MAIRE, P. A. 390 NORTH ORANGE AVENUE SUITE 2500 ORLANDO, FL 32801				
EXAMINER MC'CARRY JR, ROBERT J				
ART UNIT		PAPER NUMBER		
3617				
MAIL DATE		DELIVERY MODE		
03/28/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SAMUEL R. MOLLET, ANTHONY F. COLUCCI and
AUGUSTUS HENRY BROWN

Appeal 2007-4430
Application 10/774,967
Technology Center 3600

Decided: March 28, 2008

Before: JENNIFER D. BAHR, ANTON W. FETTING and
STEVEN D.A. MCCARTHY, *Administrative Patent Judges.*

MCCARTHY, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

1
2 The Appellants appeal under 35 U.S.C. § 134 (2002) from the final
3 rejection of claims 1-31. We have jurisdiction under 35 U.S.C. § 6(b)
4 (2002).

The claims on appeal relate to monitoring and reporting of the status of rail line wayside equipment such as railroad grade crossing warning systems. (Spec. 1, ll. 9-10 and 4, ll. 17-18). Independent claim 1 is representative of the Appellant's claims and reads as follows:

1. An apparatus comprising:
circuitry generating information indicative
of an operating status of rail line wayside
equipment;
a first communications link for
communicating the information from a wayside
equipment location to a railroad locomotive; and
a second communications link for
communicating the information from the railroad
locomotive to a location remote from the wayside
equipment location.

Claims 1, 2 and 4-31 stand rejected under 35 U.S.C. § 103(a) (2002) as being unpatentable over Ehrenberger (U.S. Patent 5,785,283) in view of Cardella (U.S. Patent 6,480,810). Claim 3 stands rejected under section 103(a) as being unpatentable over Ehrenberger in view of Cardella and Pace (U.S. Patent 5,954,299).

We AFFIRM.

ISSUES

There are two issues in this appeal:

- (1) whether the subject matter of claims 1, 2 and 4-31 is unpatentable over Ehrenberger in view of Cardella; and
- (2) whether the subject matter of claim 3 is unpatentable over Ehrenberger in view of Cardella and Pace.

3. Ehrenberger teaches that a conventional locomotive cab includes a head-of-train ["HOT"] unit in communication with an end-of-train ["EOT"] unit. The reference teaches that a conventional HOT unit includes a microprocessor control circuit and a UHF radio transceiver. (Ehrenberger, col. 2, ll. 22-35). Ehrenberger teaches transmitting operational status information from the wayside system through the UHF radio transceiver of the WCU to the UHF radio transceiver of the HOT unit in the locomotive cab so as to communicate the operational status information to the crew in the locomotive cab. (Ehrenberger, col. 3, ll. 14-21).

4. Cardella teaches a remote diagnostics and monitoring system for a locomotive. The locomotive has an on-board monitor system to monitor the status of locomotive subsystems. "Once the monitored data is collected, it is sent, via either a satellite link 14, or a direct line connection, not shown, to a monitoring and diagnostic service center 16 which includes a respective transceiver, not shown, at each location." (Cardella, col. 2, ll. 10-19).

PRINCIPLES OF LAW

A claim is unpatentable for obviousness under section 103(a) if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." In *Graham v. John Deere Co.*, 383 U.S. 1 (1966), the Supreme Court set out factors to be considered in determining whether claimed subject matter would have been obvious:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined.

Id., 383 U.S. at 17.

Recently, the Supreme Court clarified the law concerning obviousness under section 103(a) in *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007). In *KSR*, the Supreme Court rejected “rigid and mandatory formulas” for assessing patentability under section 103(a), *id.*, 127 S.Ct. at 1741, and instead prescribed “an expansive and flexible approach” to determining obviousness, *id.*, 127 S.Ct. at 1739. After reviewing its own precedent, the Court held that “[t]he obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents.” *Id.*, 127 S.Ct. at 1741. Pointing out that “common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions,” the Court held that “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.*

ANALYSIS

A. *The Rejection of Claims 1, 2 and 4-31 under § 103(a) As
Having Been Obvious from Ehrenberger in View of Cardella*

The first section of the Appellants' Brief addresses the patentability of
all of the rejected claims.

The appellants' first argument applies to all of the
claims 1-31. Independent claim 1 may be
considered to be representative of this group for
the purposes of this first argument only. The
appellants argue that all of the rejections under 35
USC 103(a) are defective because there is no basis
in the art for combining the teachings of
Ehrenberger and Cardella.

(Appeal Br. 3). The Board acknowledges the Appellants' claim grouping
and adopts the Appellants' proposed representative claim.

We agree with the Examiner's finding that "Ehrenberger et al.[.]
discloses a system and method for a wayside track device to communicate
with a locomotive." (Ans. 3). More specifically, Ehrenberger teaches a
system in which a WCU including a microprocessor controller and a UHF
transceiver transmits operational status information from a wayside device to
a transceiver in the HOT system in a locomotive cab. (FF 2). The WCU
transmits operational information including defects sensed by a wayside
sensor. For example, the WCU may transmit information concerning the
status of a highway crossing analyzer to a locomotive "in advance of the
train approaching a highway crossing system that is malfunctioning." (FF
1). Therefore, Ehrenberger teaches an apparatus including (1) circuitry
generating information indicative of an operating status of rail line wayside

1 equipment and (2) a first communications link for communicating the
2 information from a wayside equipment location to a railroad locomotive.

3 We also agree with the Examiner's finding that "Cardella discloses a
4 locomotive 10 in two way satellite communication with a central
5 communications center for the train system." (Ans. 3; *see* FF 4). In other
6 words, Cardella teaches a second communications link for communicating
7 information from the railroad locomotive to a location remote from the
8 wayside communications equipment.

9 We further agree with the Examiner's finding that:

10
11 It would have been obvious to one of ordinary skill
12 in the art to have applied a communication link
13 from a locomotive to a remote dispatch center, like
14 that of Cardella, to a system like that of
15 Ehrenberger et al[.] so that operational status
16 information about the wayside equipment along
17 train routes may be communicated. This way the
18 central communication center can keep track of
19 inoperable wayside equipment and be able to send
20 work crews out to perform repairs.
21

22 (Ans. 3-4). One having ordinary skill in the art would have found it obvious
23 to combine Ehrenberger's apparatus including (1) circuitry generating
24 information indicative of an operating status of rail line wayside equipment
25 and (2) a first communications link for communicating the information from
26 a wayside equipment location to a railroad locomotive with Cardella's
27 apparatus including (3) a second communications link for communicating
28 information from the railroad locomotive to a location remote from the
29 wayside communications equipment. The resulting apparatus, without more,
30 merely combines two pre-existing elements, each performing its expected

1 function and the two elements together doing no more than they would in
2 separation. *See Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396
3 U.S. 57 (1969) (cited with approval in *KSR Int'l*, 127 S.Ct. at 1740)).

4 Ehrenberger teaches parallel communications links from the wayside
5 equipment, namely, a modem transmitting operational status information to
6 a control center at a remote location and the WCU for transmitting the same
7 information to a locomotive cab. (FF 2). The teachings of Ehrenberger and
8 Cardella together would have given one of ordinary skill in the art reason to
9 create parallel communications links to a remote locations, namely, the
10 modem transmitting operational status information to the control center and
11 the satellite link transmitting information from the locomotive cab to the
12 service center. (FF 2 and 3). Having combined Ehrenberger's UHF radio
13 transceiver communicating operational status information from the wayside
14 equipment to the locomotive cab with Cardella's satellite link for
15 communicating information from the locomotive cab to the control center,
16 one of ordinary skill in the art would have had reason to modify the
17 communications link between the locomotive cab and the control center so
18 as to permit the operational status information through this link. This
19 modification would have allowed the one of ordinary skill in the art to
20 eliminate the parallel communications link through the modem between the
21 wayside equipment and the control center while maintaining links
22 communicating the operational status information to both the locomotive cab
23 and the control center.

24 Therefore, one having ordinary skill in the art would have had reason
25 to modify the system taught by Ehrenberger in view of the teachings of

Cardella so as to obtain subject matter within the extent of Appellants' claim

1.

*B. The Rejection of Claim 3 under § 103(a) As Having Been
Obvious from Ehrenberger in View of Cardella and Pace*

Although claim 3 is rejected under § 103(a) as having been obvious over Ehrenberger in view of Cardella and Pace rather than as having been obvious over Ehrenberger in view of Cardella alone, the Appellants grouped claim 3 together with claims 1, 2 and 4-31 and did not present any separate argument contending that claim 3 might be patentable if claim 1 were not. Having concluded on the record before us that the Appellants have not shown that the Examiner erred in rejecting claim 1, we conclude that the Appellants have not shown that the Examiner erred in rejecting claim 3 as being unpatentable over Ehrenberger in view of Cardella and Pace.

*C. The Rejection of Claims 6, 11, 14, 19, 22, 24, 25 and 28-31 As
Having Been Obvious from Ehrenberger in View of Cardella*

The second section of the Appellants' Brief addresses language in certain claims.

The appellants' second argument applies specifically to dependent claims 6, 11, 14, 19, 22, 24, 25 and 28-31. The appellants argue that the rejections of these claims under 35 USC 103(a) are defective because each of these claims contains a limitation that is not taught or suggested in the cited prior art patents to Ehrenberger and Cardella.

(Appeal Br. 4). In the course of their arguments, the Appellants did not specifically attack the Examiner's findings or rationale. Instead, they contended that they "specifically requested the Examiner to provide the figure number and/or column and line references for the teaching of such limitations." (Appeal Br. 6).

The Examiner responded to the Appellants' contention by detailing the teachings of Ehrenberger and Cardella which formed the grounds for the Examiner's rejection of claims 6, 11, 14, 19, 22, 24, 25 and 28-31. (Ans. 5-8). The Appellants did not file a reply brief showing error in these grounds. On the record before us, the Appellants have not shown that the Examiner erred in rejecting claims 6, 11, 14, 19, 22, 24, 25 and 28-31 as being unpatentable over Ehrenberger in view of Cardella.

CONCLUSION OF LAW

On the record before us, we conclude that one having ordinary skill in the art would have had reason to modify the system taught by Ehrenberger in view of the teachings of Cardella so as to obtain subject matter within the extent of Appellants' claim 1. Therefore, the Appellants have not shown that the Examiner erred in rejecting claims 1, 2, and 4-31 under section 103(a) as being unpatentable over Ehrenberger in view of Cardella. The Appellants likewise have not shown that the Examiner erred in rejecting claim 3 as being unpatentable over Ehrenberger in view of Cardella and Pace.

DECISION

We affirm the Examiner's rejection of claims 1-31.

No time period for taking any subsequent action in connection with
this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R.
§ 1.136(a)(1)(iv) (2006).

AFFIRMED

jlb

BEUSSE WOLTER SANKS MORA & MAIRE, P.A.
390 NORTH ORANGE AVENUE
SUITE 2500
ORLANDO, FL 32801